

09/901, 722

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L2	23	chapchikov.in.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/01/13 13:14
L8	2	("5994247").PN.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/01/13 14:03
L9	0	"21625899"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/01/13 14:04
L10	14	"1081406"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/01/13 14:09
L11	0	"21625899"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/01/13 14:09
L12	0	"1999625899"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/01/13 14:09
L13	14	non-asbestos same friction same (fiber\$1 near5 length)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/01/13 15:07
L14	10	("4324706" "4563495" "5383963" "5891933" "5942205" "5952416" "6013238" "6036938" "6251361" "6355601").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2005/01/13 15:01
L15	20	akihiro.in. same hikichi.in.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/01/13 15:07
L16	9	mikiya.in. same haruta.in.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/01/13 15:10
L17	13	15 not 16	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/01/13 15:23

L18	15	(("5645076") or ("4446203") or ("5866636") or ("5495922") or ("6260674") or ("4320823")).PN.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/01/13 15:24
L19	6	18 and fiber\$1	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/01/13 15:26
L20	1925	(friction material) same fiber\$1	US-PGPUB; USPAT; EPO; JPO; DERWENT	ADJ	OFF	2005/01/13 15:27
L21	511	asbestos and 20	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/01/13 15:31
L22	0	yamane.in. same "takeshi.in"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/01/13 15:32
L23	0	yamane.in. same "takeshi.in"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/01/13 15:32
L24	222	yamane.in. same takeshi.in.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/01/13 15:32
L25	22	24 and friction	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/01/13 15:36
L26	2	("4182437").PN.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/01/13 15:36
L27	5	("3844800" "3891595" "3899050" "3967037" "4119591").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2005/01/13 15:36
L28	7	("4182437").URPN.	USPAT	OR	OFF	2005/01/13 15:40
S1	280	(442/148).CCLS.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2004/10/07 14:40
S2	9	amorphous and ((442/148).CCLS.)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2003/02/21 14:01

S3	29	silica and ((442/148).CCLS.)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2003/02/21 14:08
S4	35	friction and ((442/148).CCLS.)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2003/02/21 14:12
S5	17296	(brake near2 (pad or lining)) or (clutch near2 facing)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2003/02/21 14:12
S6	8628	friction and ((brake near2 (pad or lining)) or (clutch near2 facing))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2003/02/21 14:13
S7	3	(friction and ((brake near2 (pad or lining)) or (clutch near2 facing))) and ((442/148).CCLS.)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2003/02/21 14:13
S8	3	((442/148).CCLS.) and ((brake near2 (pad or lining)) or (clutch near2 facing))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2003/02/21 14:13
S9	1	asbestor near1 (non or free)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2003/02/21 14:14
S10	2356	asbestos near1 (non or free)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2003/02/21 14:20
S11	4	((442/148).CCLS.) and (asbestos near1 (non or free))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2003/02/21 14:22
S12	3	("4446203").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2003/02/21 14:44
S13	3	("3967037" "4244994" "4320823").PN.	USPAT	OR	OFF	2003/02/21 14:22
S14	2	("4130537").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2003/02/21 14:50

S15	4	("3207623").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2003/02/21 14:51
S16	9	"3207623".URPN.	USPAT	OR	OFF	2003/02/21 14:50
S17	9828	SiO2 and (CaO or MgO) and (Al2O3 or ZrO2) and (Na2O or K2O or FeO or Fe2O3 or BaO)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2003/02/21 14:52
S18	53	friction and (SiO2 and (CaO or MgO) and (Al2O3 or ZrO2) and (Na2O or K2O or FeO or Fe2O3 or BaO))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2003/02/21 15:15
S19	161	amorphous and (SiO2 and (CaO or MgO) and (Al2O3 or ZrO2) and (Na2O or K2O or FeO or Fe2O3 or BaO))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2003/02/21 15:15
S20	6	(brake or clutch) and (amorphous and (SiO2 and (CaO or MgO) and (Al2O3 or ZrO2) and (Na2O or K2O or FeO or Fe2O3 or BaO)))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2003/02/21 15:18
S21	2651	(428/297.4,292.1,402).CCLS.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2003/02/21 15:18
S22	20	((brake near2 (pad or lining)) or (clutch near2 facing)) and ((428/297.4,292.1,402).CCLS.)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2003/02/21 15:19
S23	0	(((brake near2 (pad or lining)) or (clutch near2 facing)) and ((428/297.4,292.1,402).CCLS.)) and (SiO2 and (CaO or MgO) and (Al2O3 or ZrO2) and (Na2O or K2O or FeO or Fe2O3 or BaO))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2003/02/21 15:19
S24	0	((428/297.4,292.1,402).CCLS.) and (SiO2 and (CaO or MgO) and (Al2O3 or ZrO2) and (Na2O or K2O or FeO or Fe2O3 or BaO))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2003/02/21 15:19
S25	2	("6475614").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2003/02/21 15:24
S26	2	("5965658" "6284815").PN.	USPAT	OR	OFF	2003/02/21 15:25

S27	6	(("6260674") or ("5495922") or ("5866636")).PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2003/02/24 10:26
S28	2	("6260674").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2003/09/23 14:50
S29	2	("5994247").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2004/10/07 14:40

Hit List*Family search* Clear Generate Collection Print Fwd Refs Bkwd Refs Generate OACS**Search Results - Record(s) 1 through 2 of 2 returned.**

1. Document ID: EP 1081406 A2

L2: Entry 1 of 2

File: EPAB

Mar 7, 2001

PUB-NO: EP001081406A2DOCUMENT-IDENTIFIER: EP 1081406 A2

TITLE: Non-asbestos friction materials

PUBN-DATE: March 7, 2001

INVENTOR-INFORMATION:

NAME

COUNTRY

YAMANE, TAKESHI

JP

ASSIGNEE-INFORMATION:

NAME

COUNTRY

NISSHIN SPINNING

JP

BBA FRICTION GMBH

DE

APPL-NO: EP00306460

APPL-DATE: July 28, 2000

PRIORITY-DATA: JP21625899A (July 30, 1999)

INT-CL (IPC): F16 D 69/02EUR-CL (EPC): F16D069/02; F16D069/02

ABSTRACT:

CHG DATE=20010403 STATUS=O>&ORDF; &ORDF; &ORDF; &ORDF; A non-asbestos friction material is comprised of a molded and cured composition which includes a fibrous base, a binder, a filler, and particles of a rubber composite composed primarily of at least one fibrous substance and rubber, or of at least one fibrous substance, at least one type of hard particle and rubber. The rubber composite particles enable the fibrous substance to be uniformly dispersed and mixed without forming clumps and without segregation of the hard fibrous substance and the hard particles in the finished article. The qualities of each constituent can thus be used to full advantage to give friction materials such as automotive disk pads which have an excellent friction performance.

 Full Title Citation Front Review Classification Date Reference Searcher Search Claims KOMC Drawn De

2. Document ID: EP 1081406 A2, JP 2001107025 A, KR 2001049947 A, US 6451872 B1

L2: Entry 2 of 2

File: DWPI

Mar 7, 2001

DERWENT-ACC-NO: 2001-292664

DERWENT-WEEK: 200270

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TITLE: Non-asbestos friction material used for manufacture of, e.g., automotive disc pads, comprises fibrous base, binder, filler and rubber composite

INVENTOR: YAMANE, T

PATENT-ASSIGNEE:

ASSIGNEE	CODE
BBA FRICTION GMBH	BBAFN
NISSHINBO IND INC	NISN

PRIORITY-DATA: 1999JP-0216258 (July 30, 1999)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
EP 1081406 A2	March 7, 2001	E	010	F16D069/02
JP 2001107025 A	April 17, 2001		010	C09K003/14
KR 2001049947 A	June 15, 2001		000	F16D069/02
US 6451872 B1	September 17, 2002		000	C08J005/14

DESIGNATED-STATES: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI

APPLICATION-DATA:

PUB-NO	APPL-DATE	APPL-NO	DESCRIPTOR
EP 1081406A2	July 28, 2000	2000EP-0306460	
JP2001107025A	July 25, 2000	2000JP-0223321	
KR2001049947A	July 31, 2000	2000KR-0044221	
US 6451872B1	July 28, 2000	2000US-0628551	

INT-CL (IPC): C08 J 5/14; C08 K 7/02; C08 L 21/00; C09 K 3/14; F16 D 69/02

ABSTRACTED-PUB-NO: EP 1081406A

BASIC-ABSTRACT:

NOVELTY - The material comprises a molded and cured composition that includes: (A) a fibrous base; (B) a binder; (C) a filler; and (D) particles of a rubber composite that consists primarily of at least one hard or soft fibrous substance having a Mohs hardness below 4 and rubber, and, optionally, at least one type of hard particle having a Mohs hardness of at least 4.

DETAILED DESCRIPTION - The fibrous base (A) may be any inorganic or organic fiber commonly used in friction material, other than asbestos.

The binder (B) may be a known binder commonly used in friction materials, e.g. phenolic resins, melamine resins, etc..

The filler (C) may be any inorganic or organic material used in ordinary friction materials, e.g. molybdenum disulfide, magnesium oxide, etc..

The rubber composite particles (D) may contain a crosslinking agent and have an average particle size of 50-10,000 microns .

Preferably, the rubber composite particles are porous and have bulk density after mixing and size reduction of at most one-half the theoretical density.

Production of the composite particles involves mixing the fibrous substance, e.g. ceramic, natural mineral, glass, metal, aramid, carbon, etc., fibers, the rubber, e.g. acrylonitrile-butadiene rubber, and, optionally, the hard particles, e.g., ceramic, metal oxide, or nitride particles, at 20-200 deg. C under a pressure of 1-100 kg/cm² for 1-30 minutes, then releasing the pressure to 20 kg/cm² or less, and milling and mixing.

An INDEPENDENT CLAIM is given for a non-asbestos friction material based on that described above, but where the rubber composite additionally includes at least one type of hard particle having a Mohs hardness of at least 4.

USE - For braking in automobiles, large trucks, railroad cars and various types of industrial equipment.

ADVANTAGE - Counter surface attack and the amount of wear due to segregation of hard particles and hard fibrous substance within the friction material are reduced. Noise performance is improved. Reduction in the friction coefficient at high temperatures is reliably prevented. Tearing and loss of rubber during brake operation are minimized.

CHOSEN-DRAWING: Dwg.0/0

TITLE-TERMS: NON ASBESTOS FRICTION MATERIAL MANUFACTURE AUTOMOTIVE DISC PAD
COMPRISE FIBRE BASE BIND FILL RUBBER COMPOSITE

DERWENT-CLASS: A88 L02 Q63

CPI-CODES: A12-H10; L02-F;

ENHANCED-POLYMER-INDEXING:

Polymer Index [1.1] 018 ; R00817 G0475 G0260 G0022 D01 D12 D10 D26 D51 D53 D58 D83 F12 ; R00806 G0828 G0817 D01 D02 D12 D10 D51 D54 D56 D58 D84 ; H0124*R ; H0022 H0011 ; P0328 ; P0088 ; P0124 ; P0135 Polymer Index [1.2] 018 ; P0737*R P0635 H0293 F70 D01 D18 ; S9999 S1070*R Polymer Index [1.3] 018 ; ND01 ; Q9999 Q7603*R ; Q9999 Q7614 Q7603 ; Q9999 Q9234 Q9212 ; Q9999 Q9289 Q9212 ; K9416 ; N9999 N6439 ; N9999 N6600 ; B9999 B3792 B3747 Polymer Index [2.1] 018 ; P0226 P0282*R D01 D18 F30 Polymer Index [2.2] 018 ; R00859 G1809 G1649 D01 D23 D22 D31 D45 D50 D76 D83 F19 F10 F07 ; P0259*R P0226 D01 ; H0011*R Polymer Index [2.3] 018 ; ND01 ; Q9999 Q7603*R ; Q9999 Q7614 Q7603 ; Q9999 Q9234 Q9212 ; Q9999 Q9289 Q9212 ; K9416 ; N9999 N6439 ; N9999 N6600 ; B9999 B3792 B3747 Polymer Index [2.4] 018 ; Q9999 Q6791

SECONDARY-ACC-NO:

CPI Secondary Accession Numbers: C2001-089829

Non-CPI Secondary Accession Numbers: N2001-209214

Full Title Citation Front Review Classification Date Reference Author Co-Author Claims KMC Drawn De

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